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The role of smallholder farmers in sustainable commodities production and trade

Report by the UNCTAD secretariat

Executive summary

Building on the momentum generated by the attention devoted to smallholders in 2014, the forthcoming UNCTAD *Commodities and Development Report 2015* carries the issue forward and argues that smallholders are key actors in the quest for a more inclusive and socially and environmentally sustainable agricultural development model. The report states that by their sheer number, smallholders should warrant specific attention in the aspiration to "leave no one behind" in the efforts to be deployed in the achievement of the forthcoming sustainable development goals (SDGs). This note highlights the report's findings and key messages. It underscores the major constraints facing smallholders and provides policy recommendations to help unlock their potential contribution to sustainable commodities production and trade. In addition to the tested solutions and good practices identified in many countries, the *Commodities and Development Report 2015* offers a policy framework that combines measures at the national, regional and international levels and an accompanying plan of action for smallholders that builds on UNCTAD's integrated approach to trade, finance, investment and technology. The report underlines the need for policy clarity and strong leadership at the highest levels – domestic, regional and international – as well as the primacy that should be given to policy alignment across these three levels. Because business as usual is not an option in achieving the forthcoming SDGs, the report argues that a mechanism for greater accountability based on the monitoring of progress on key commitments related to smallholders is urgently needed.

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I. Introduction

1. There were many good omens for smallholder farmers in 2014. Indeed, the contributions of family farmers and smallholders to food security, poverty reduction and sustainable development were specifically recognized by the United Nations General Assembly when it declared 2014 as the International Year of Family Farming. The African Union in turn proclaimed 2014 as the Africa Year of Food Security. Building on this momentum, the UNCTAD *Commodities and Development Report 2015* carries the issue of smallholders into 2015, a pivotal year for the international development agenda. The report focuses on those who farm areas of about 2 hectares of landholding or less, and argues that smallholders are key actors in the quest for a more inclusive and socially and environmentally sustainable agricultural development model. The report states that by their sheer number, smallholders should warrant specific attention in the aspiration to "leave no one behind" in the efforts to be deployed in the achievement of the forthcoming SDGs.

2. Notwithstanding diversity of contexts and data constraints, according to the International Fund for Agricultural Development and the United Nations Environment Programme, about 2.5 billion people are employed, partially or entirely, in 500 million small farms worldwide.[1] With regard to geographic distribution of small farms (that is, less than 2 hectares), data from the Food and Agriculture Organization of the United Nations (FAO) covering the 2001–2004 period suggest that about 87 per cent of these are in the Asia and Pacific region, 8 per cent are in Africa, 4 per cent are in Europe and less than 1 per cent are in Latin America. There are, for example, about 45 million small farms in Africa, many of which consist of subsistence farmers that rely entirely or partially on family labour, which is comprised mainly of women.[2]

3. Smallholders supply about 70 per cent of Africa's total food requirements and provide around 80 per cent of the food consumed in both Asia and sub-Saharan Africa.[3] Furthermore, smallholders in several developing countries produce the bulk of these countries' main agricultural exports. For example, in Ghana cocoa production is dominated by thousands of smallholder producers cultivating less than 2 hectares per farm. Owing largely to its smallholders, Ghana produces an estimated 20 per cent of the world's cocoa, making the country the second largest producer in the world, with cocoa exports accounting for about 40 per cent of its foreign exchange earnings and for 8–12 per cent of its gross domestic product.[4]

4. However, despite their important contribution smallholders have suffered from benign neglect by policymakers as well as by the international community. As a result, smallholders in the developing world continue to account for a large proportion of the poor. Estimates show that 70 per cent of the developing world's 1.4 billion extremely poor people

[1] International Fund for Agricultural Development and the United Nations Environment Programme, 2013, *Smallholders, Food Security, and the Environment* (Rome), available at http://www.ifad.org/climate/resources/smallholders_report.pdf (accessed 15 July 2015).

[2] FAO, 2011, *The State of Food and Agriculture 2010-11, Women in Agriculture: Closing the Gender Gap for Development* (Rome), available at http://www.fao.org/docrep/013/i2050e/i2050e.pdf (accessed 16 July 2015).

[3] See reference footnote 1.

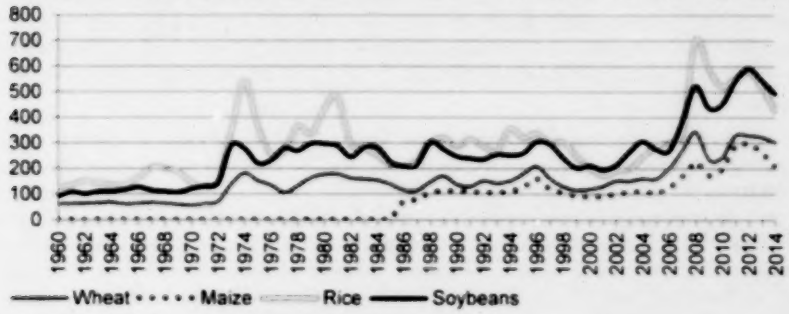
[4] See Ghana: A self-assessment guide for the cocoa sector, available at http://edes.coleacp.org/en/edes/news/30589-ghana-self-assessment-guide-cocoa-sector (accessed 16 July 2015).

live in rural areas, particularly in South Asia and in sub-Saharan Africa.[5] Taking this grim reality as a starting point, the *Commodities and Development Report 2015* takes stock of the current state of smallholder agriculture, identifies what actions need to be strengthened and what policy changes need to be made in order to ensure greater results in reducing food and nutrition insecurity and poverty, and in increasing the economic and social inclusion of smallholders.

5. The report is relevant and timely for three reasons. First, smallholder farmers are central to the achievement of food security objectives balanced with sustainability considerations. In light of heightened concerns about food insecurity after the 2008 food crisis and the elevated food prices since then (see figure 1), the role of smallholder farmers in achieving food security objectives needs to be better acknowledged.

Figure 1

Wheat, maize, rice and soybeans international nominal prices (US$ per ton), 1961–2014



Source: UNCTAD secretariat from UNCTADStat.

6. Second, the report analyses constraints to the sustainable development of smallholder agriculture at the national, regional and global levels, highlights tested solutions for improving the economic conditions of smallholders and proposes new ones. In doing so, it emphasizes the need for a policy mix that addresses the specific needs of smallholders at national, regional and international levels. This approach makes the report a relevant and timely reference for policymakers and other stakeholders on smallholder issues as they prepare for the General Assembly Summit for the Adoption of the Post-2015 Development Agenda in September 2015, the World Trade Organization tenth Ministerial Conference to be held in Nairobi and the Climate Summit in Paris, both in December 2015. Third, the report is also of relevance for discussions under way in preparation for the fourteenth session of the United Nations Conference on Trade and Development in Lima in March 2016. In the following sections, the present note highlights the report's findings and key messages. It underscores the major constraints facing smallholders and provides policy recommendations to help unlock their potential contribution to sustainable commodities production and trade.

II. Findings

A. Policy neglect of smallholders

7. There has been a long-running debate on whether small- or large-scale farms are the most productive, and which of them contribute more to overall agricultural development.

[5] See http://data.worldbank.org/topic/agriculture-and-rural-development (accessed 16 July 2015); and FAO, 2011, as in footnote 2.

Several studies suggest that small farms have higher land productivity than large farms by virtue of the so-called inverse relationship between farm size and productivity. These studies claim to provide evidence that smallholders have lower unit transaction costs because they operate in labour-surplus and capital-scarce rural areas. Opponents of this viewpoint counter that the samples used do not have an adequate representation of large farms to allow balanced conclusions regarding the respective productivity performances of the two farm sizes. However, agricultural policy design has not been influenced by these two contrasting views and more often than not has incorporated a bias in favour of large-scale farmers.

8. Though the overall share of foreign direct investment (FDI) in agriculture over total FDI flows remains marginal[6], there has been an increase in the number of large land acquisitions in developing countries over the past years. Agribusiness, (sovereign) investment funds and government agencies have been acquiring long-term rights through either acquisitions or long-term leases (typically between 50 and 100 years), over large areas of land (of over 1,000 hectares in many cases).[7] Private sector investments have been primarily driven by prospects of rising agricultural commodity prices and high returns on investments, whereas public investments have been motivated by concerns about food and energy security.

9. As part of the bias favouring large-scale farms, during the 1980s and 1990s, many countries, particularly in Africa, withdrew state support to smallholders under structural adjustment programmes which prescribed reducing the role of the State and "getting prices right". As crop marketing boards were dismantled, extension services were either abolished or weakened and input supplies (for example, fertilizer and seedlings) no longer reached smallholders, in particular because the private sector was not able to step in and fill the gap left by traditional public institutions. As a result, smallholders could not access the factors of production that were essential for helping them improve productivity. Smallholders also encountered high transaction costs that prevented them from selling even in domestic markets, thus forcing them to sell cheaply at the farm gate. In addition, globalization and market liberalization in agriculture exposed smallholders to the vagaries of international markets, especially high price volatility, as government commodity marketing boards whose role consisted of guaranteeing producer prices were abolished. In the last decade, the introduction of commodity exchanges in many regions was expected to limit the negative effect of price volatility on smallholders' incomes. However, the experience in Africa has not been encouraging due to various factors, such as their low volume of transactions and low levels of liquidity.

10. Until 2006, the benign policy neglect of smallholders was exacerbated by the poor quality of data concerning this class of farmers, resulting in a lack of understanding of their true contribution to total agricultural production and gross domestic product, and of their share in labour force participation. Available survey data on the characteristics and contributions of smallholder farmers were too restricted and hence could not be extrapolated to a wider sample of countries. The situation has partially improved since

[6] See for example, UNCTAD, World Investment Report 2009: Transnational Corporations, Agricultural Production and Development (New York and Geneva, United Nations publication).

[7] Data show that large scale investments are typically foreign, see, for example, K Deininger and D Byerlee, 2012, The rise of large farms in land abundant countries: Do they have a future? World Development, 40(4): 701–714; and FAO and Earthscan, 2011, The State of the World's Land and Water Resources for Food and Agriculture: Managing Systems at Risk (Rome, FAO).

2006, when FAO started undertaking an agricultural census in over 105 countries. The census shows a high proportion of smallholder farmers in countries such as Bangladesh, the Gambia, India, Malawi and Viet Nam. It has also highlighted the preponderance of women in smallholder farming, and has established a link between smallholders and poverty in developing countries. The persistence of poverty among them is due to several factors, including their limited access to credit, limited assets (including equipment) and low levels of education, especially among women farmers, for example in Burkina Faso and India.

11. Despite improved knowledge brought by new data, the dichotomy between smallholder and large-scale farming remains pronounced in four areas. First, stiff competition across countries and fragmented value chains have made it difficult for smallholders to participate in international trade. Large farms are also better than small ones in handling integration into supply chains and certification of products, which are becoming common practices in international trade. Second, there has recently been relative growth in the number of large farms, particularly in emerging economies, and these farms are becoming increasingly mechanized. Third, labour availability is reaching its limits, particularly in some emerging countries, and most probably the higher opportunity cost of relying on labour is making it difficult for small farms to survive. Fourth, the acquisition of large tracts of land by foreign investors threatens to exacerbate the marginalization of smallholders in the multilateral trading system. Indeed, large scale investment can be a win–win strategy for the investor and for the host country only when in addition to the usual benefits expected from FDI, the recipient country has sufficient safeguards in place to deal with the associated risks, including the loss of existing land rights of smallholders, negative environmental impacts and threats to their own food security.[8]

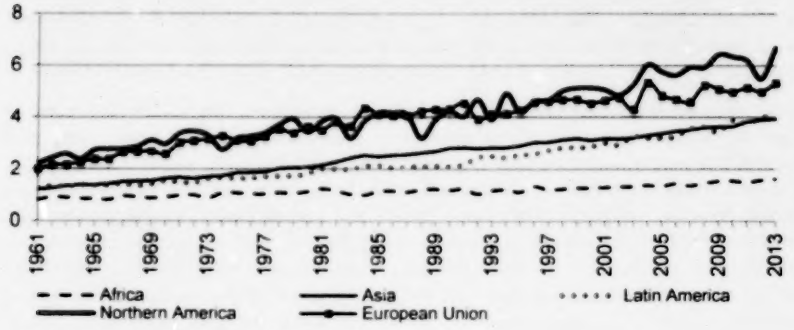
B. Limited access to inputs and output markets

12. The extent of smallholders' participation in input and output markets partly determines their productivity and hence earnings. Farmers use a range of inputs in the production process, including seeds and fertilizers, land, labour and credit. Seed markets are usually divided into formal and informal systems. Formal systems are infrequent, as the high cost of quality seeds resulting from expensive seed certification schemes and transaction costs are beyond the financial reach of most smallholders. Few smallholders in developing countries, particularly in Africa, are able to afford fertilizers due to their high prices, unless they benefit from subsidies. This partially explains the very low levels of fertilizer use in these countries, and therefore their low productivity when assessed against the standard criteria used for measuring agricultural yield. Low fertilizer use and the lack of irrigation facilities also account for most of the large productivity differentials between developed and developing countries and between developing countries in Africa and those in Asia (see figure 2). Recent estimates show that only 4 per cent of the production area is under irrigation in sub-Saharan Africa, compared with 39 per cent in South Asia and 29 per cent in East Asia. Such a situation has prompted the International Food Policy Research Institute to term the lack of irrigation in Africa "the missing piece of Africa's agriculture puzzle".[9] Success stories in increasing agricultural yields are not limited to Asia. Where appropriate policies exist, agricultural yields have increased both dramatically and fast as was the case of Egypt in the 1980s and 1990s.

[8] See, for example, J von Braun and R Meinzen-Dick, 2009, "Land grabbing" by foreign investors in developing countries: Risks and opportunities, International Food Policy Research Institute Policy Brief 13 (Washington, D.C.), available at http://www.ifpri.org/sites/default/files/publications/bp013all.pdf (accessed 16 July 2015).

[9] See http://www.ifpri.org/blog/irrigating-africa (accessed 16 July 2015).

Figure 2
Cereal yields in selected developed and developing regions, 1961–2013
(Tons per hectare)



Source: UNCTAD secretariat from FAOStat.

13. Access to land encourages smallholders to engage in long-term investments, eases their access to credit using land as collateral and allows them to generate revenues through land rental or sale. However, inefficient land markets, land tenure and land management systems have been prevalent in many developing countries. As a result, many smallholders opt for land-share tenancy, an arrangement that often excludes women farmers who face gender-related constraints, including legal and social norms that prevent them from inheriting or owning land.[10]

14. Gender disparities in land rights are well documented. The FAO international comparison of agricultural census data shows that less than 20 per cent of landholders are women. Estimates range from 10 per cent of landowners being women in Western, Central and Northern Africa and the Near East, to up to 30 per cent in Eastern and Southern Africa and in parts of Latin America.[11] These inequalities originate in national civil, family and labour codes that discriminate against women, most notably with regards to inheritance rights, regardless of equality provisions in the constitutions. Furthermore, where the law might provide adequate rights, in rural areas customary rights often take precedence. In India, for example, in communities that apply Hindu personal law, married daughters without male offspring cannot inherit. In the same vein, a study on land reforms in Rwanda[12] reveals that although women constitute the majority of the Rwandan population and labour force, before the enactment of the land reform they continued to face discrimination in access to land. The study goes on to assert that despite the existence of family law that provides for equal inheritance for both women and men, such discrimination originated from the "Rwandan culture and tradition which considered the girl child inferior to the boy, physically, intellectually and socially, and subjected her to man". Over 80 per cent of constraints to land access were said to be related to inheritance. As such, the land reform in Rwanda was historical as it allows for the names of both the

[10] See, for example, reference in footnote 2.

[11] For further details, see http://www.fao.org/economic/es-policybriefs/multimedia0/female-land-ownership/en/ (accessed 16 July 2015).

[12] A Kairaba and J Simons, eds., Impact of the Land Reform on the Land Rights and Economic Poverty Reduction of the Majority Rural, Especially Women Who Depend on Land for their Livelihood: Rwanda Case Study, Rwanda Initiative for Sustainable Development (Kigali), available at http://siteresources.worldbank.org/INTIE/Resources/ (accessed 16 July 2015).

woman and man to appear on the land registration certificate, and finally on the land title for a family, thus unlocking access to credit for women, among many other advantages.

15. More generally, population pressure, climate change, water scarcity and recent increases in large land acquisitions have further undermined smallholders' access to land. In contrast to several countries in Asia, few countries in Africa have adopted the necessary reforms to facilitate farmers' access to land. Exceptions include Rwanda, as discussed in the preceding paragraph, where land tenancy reforms have resulted in better allocation of land and higher productivity.

16. Rural labour markets serve non-agricultural and agricultural activities, which often compete for available labour resources. These markets are generally informal and tightly tied to the seasonality of agricultural activities. They offer smallholders the opportunity to increase their incomes, diversify sources of revenue and smooth out the seasonality of agricultural incomes by engaging in non-agricultural activities. But in many countries, especially in sub-Saharan Africa, the paucity of rural labour markets and low wages imply that smallholders' own agricultural activities are their main, and sometimes only, sources of income.[13] On the other hand, rural labour markets may also create opportunities for farmers who need to buy labour to work on their farms. Farmers decide to buy labour for a variety of reasons, including skills shortage, responding to seasonal spikes and diverting their household labour to other tasks.

17. Limited access to credit is one of the main constraints facing smallholders. In Africa, about 1 per cent of commercial lending goes to agriculture, most of it to large-scale farmers. Formal financial institutions are reluctant to provide financial services to smallholders because of their lack of collateral (for example, titled land), unstable earnings, the risky nature of farming activities and difficulties in evaluating smallholders' capacity to repay their loans. Where credit is available, interest rates are often too high and repayment terms incompatible with the terms of the investment. Also, smallholders' limited access to risk mitigation or risk insurance instruments reduces their capacity to invest in their productive assets and drives them back into subsistence farming. Thus, innovative financing mechanisms are needed to increase farmers' financial ability to invest. Weather index-based insurance[14] has proved useful in helping them cope with weather-related risks, but this requires access to good meteorological data.

C. From farm gate to international markets: A series of constraints

18. Participation in well-functioning agricultural input markets can enable farmers to increase yields, and hence produce a marketable surplus that, if sold in competitive output markets, permits them to obtain higher prices and thus increase their incomes. This in turn improves their capacity to cope with risks and market instability. Better linkages with markets can induce rural populations to consider farming as a profitable, and therefore viable livelihood choice. However, whether or not smallholders are able to access larger, more lucrative national or regional markets depends on many factors, including their physical connectivity with those markets, their access to market information, and the types of products they sell, whether they are staples produced for domestic and regional markets or non-staples produced for international markets. Therefore, smallholders' participation in such markets varies across regions and countries.

19. In many countries with limited or no access to market information, in spite of the development of information and communications technologies (ICTs), many smallholders

[13] It needs to be acknowledged that incomes from activities such as animal husbandry and some non-agricultural activities can complement farm income.

[14] For details, see the *Commodity and Development Report 2015*.

continue to sell at the farm gate or village markets, where profitability and growth potential are low. Analysis based on Uganda, for example, shows that farmers do not benefit from increases in the international coffee price. The study reveals that marketing costs such as transport, handling, storage, and processing do not increase with price. Rather, international price increases are reflected relatively rapidly in domestic prices paid by exporters and large traders, as well as to additional small, occasional traders who take advantage of farmers' ignorance about price movements to capture the price premiums that should have gone to them.

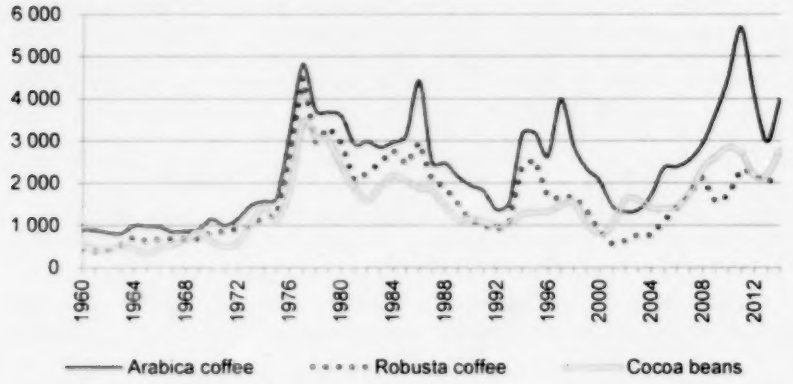
20. Urban and regional markets offer higher prices and profitability to farmers, but their participation is limited due to poor or non-existent infrastructure, shallow integration in agricultural markets at the regional level, lack of market information and difficulty in complying with quality standards that are becoming increasingly stringent as a result of tighter supermarket standards in response to the preferences of urban consumers. Farmers need support to tackle these various constraints.

21. Some smallholders do produce for highly integrated international markets for traditional cash crops such as cocoa, coffee, tea and cotton, as well as high-value products such as vegetables, fruits and flowers. These markets are important for developing countries as a major source of hard currency, employment and income for farmers, traders and exporters. In several cases of diversification, smallholders have engaged in contract farming relationships with transnational corporations. This has provided additional opportunities to some smallholders for increased incomes and poverty reduction, in particular because the value per unit or weight of these products is much higher than that of traditional tropical products. However, the number of farmers taking advantage of these opportunities is small relative to the total number of smallholders. Moreover, not only are these diversification schemes associated with increasingly stringent safety standards and other non-tariff barriers, they have also resulted in competition between the new crops and traditional food crops, sometimes threatening the very objective of food security. In the same vein, various factors continue to influence smallholders' participation in value chains, including high safety standards, market power imbalance and reduced welfare due to price volatility on international markets (see figure 3).

Figure 3

Coffee, cocoa and wheat international nominal prices, 1961–2014

(US$ per ton)



Source: UNCTAD secretariat from UNCTADStat.

22. Moreover, as "price takers", smallholders are weak participants in commodity markets. They typically buy small quantities of fertilizers, are remote and need access to trade credit. These characteristics make them unattractive to traditional private sector providers. Considering these constraints, intermediaries and exporters capture a large share of the international prices of the exported commodities. Intermediaries play an important role in linking farmers with markets by providing them with services such as marketing, inputs and finance through contractual arrangements, and also create economies of scale by collecting small quantities from individual smallholders and selling large quantities to exporters. In several instances, some of them have been associated with opportunistic behaviour that is detrimental to the development of smallholder farming. In such cases, strong farmers' organizations would not only allow bulking, but would also strengthen their negotiating power to defend smallholders' interests, including demanding higher prices for their crops. In the United Republic of Tanzania, for example, improved cooperative marketing of agricultural products such as coffee has meant that cooperative members can afford fees for the education of their children.[15] The experience of the Agriculture Society of Trinidad and Tobago, an umbrella organization representing the interests of 86 producer organizations and 12,000 individual farmers also shows the extent to which farmers' associations could shape policy in favour of a sustainable agriculture sector, including price negotiations.[16]

23. The *Commodities and Development Report 2015* assesses the extent to which smallholders are integrated into some international commodity markets. The results show that shocks to international prices are transmitted to domestic prices. Using trade liberalization as an example, the analysis provides additional evidence that the trade and economic reforms adopted in the sample countries in the 1980s and 1990s increased the vulnerability of small producers to shocks in international markets.

D. Productivity, technology and infrastructure-related constraints

24. Though not all smallholders have the potential to become profitable business entities, to be sustainable, smallholdings should be viewed as business entities that pursue profit with social stability and environmental sustainability as cornerstones. The process of commercialization has the potential to raise household incomes and thereby improve smallholder welfare. However, the transition from subsistence to commercial farming could have a negative impact on the environment.

25. Two factors determine the sustainability of smallholder farming. The first is productivity, which depends on farming technology, extension services, physical infrastructure and human capital. For many years, neither agricultural technologies nor research and development were adapted to smallholder farming requirements, as they were developed with the aim of increasing yields on large and medium-sized farms. This refers especially to technologies emerging from profit-oriented research and development activities. With some exceptions, even public research and development activities have generally failed to develop technologies adapted to smallholders' needs and contexts. Public funding of agricultural research has not only been very low, but it has also tended to

[15] See https://sustainabledevelopment.un.org/content/documents/1247ilo.pdf (accessed 20 July 2015). In addition, recognizing the essential role of agricultural cooperatives that "are efficient and equitable (that is, inclusive and gender-sensitive)" as agents of change, FAO has included producer organizations as strategic partners in the implementation of its Strategic Framework 2010–2019. Sources: http://www.un.org/esa/socdev/documents/2014/coopsegm/McInerney.pdf (accessed 20 July 2015).

[16] UNCTAD, 2013, Report of the Global Commodities Forum: Recommitting to commodity sector development as an engine of economic growth and poverty (UNCTAD/SUC/2013/4).

neglect the needs of smallholders, even in countries where they dominate the agricultural landscape. The result has been a stagnation of smallholder agriculture in many low-income developing countries, particularly in Africa, as illustrated by the very low rates of productivity.

26. In addition, over the past two decades, public extension systems in many developing countries have been in decline, and, as discussed earlier, the private sector has failed to meet the demands of low-income producers because many of the needs of smallholders cannot be met by markets. In Africa, for example, with the dismantling of commodity marketing boards, the privatization of agricultural marketing and the dramatic reduction of agriculture budgets, the provision of extension services has drastically declined. Even where these services are provided, they often concentrate on major cereals and export commodities and tend to focus on increasing farm production while neglecting important aspects such as marketing and sustainable-agriculture approaches. Also, the provision of these services is generally biased in favour of men even though female farmers are known to play a major role in smallholder agriculture, reflecting existing inequalities in the treatment of men and women in society. As already observed, such bias generally results from existing inequalities in the treatment of men and women.

27. Finally, there have been insufficient investments in rural infrastructure such as roads and irrigation facilities despite their important role in increasing productivity. Although estimates appear to have been exaggerated, according to recent research, post-harvest losses have also been an important leakage of marketable production.

E. Constraints related to the business environment

28. The second factor that determines the sustainability of smallholder farms as business entities is business facilitation. The policy bias that benefits large-scale farming also translates into policies to attract foreign direct investment that do not include safeguards in favour of smallholders. Analysis by UNCTAD of FDI trends in 2013 showed that more than half of new liberalization, promotion or facilitation measures related to the provision of investment incentives by governmental investment promotion agencies as a policy instrument for attracting investment – despite an increase in criticisms that such incentives "are economically inefficient and lead to misallocations of public funds". Agriculture was among the top three target industries of investment promotion agencies, whereas environmental protection and development of disadvantaged regions do not rank highly in their promotion strategies.[17]

29. Moreover, though the central role played by smallholders in investment is generally acknowledged, potential conflicts that may arise from FDI in agriculture and investment law have also been underlined by investment policy experts. A World Bank and UNCTAD study based on a field survey on the agricultural operations at 39 large-scale, mature agribusiness investments in sub-Saharan Africa and Southeast Asia shows that these investments generally had more positive effects than negative ones. Positive effects included job creation, with a ratio of an average of one job for every 20 hectares of land and thousands of farmers benefiting from contract farming. Negative effects were mostly linked to land rights and the associated resettlement being seldom sufficiently consultative, inclusive, or adequately compensated. In addition, assessment of the environmental impact was generally considered inadequate and non-transparent.[18]

[17] UNCTAD, 2014, World Investment Report. Investing in the Sustainable Development Goals: An Action Plan (New York and Geneva, United Nations publication).

[18] See World Bank and UNCTAD, 2014, The Practice of Responsible Investment Principles in Larger Scale Agricultural Investments: Implications for Corporate Performance and Impact on Local Communities, World Bank report No. 86175-GLB; and also Anne van Aaken's post: Large scale

30. Beyond investment incentives, business facilitation is defined as the range of assistance in the identification and seizing of opportunities, as well as the protection of production and income. They include the provision of access to finance, risk-management tools, market information and market access. Given smallholders' limited access to the formal financial sector, there has been an increasing reliance on other innovative financing mechanisms such as warehouse receipt financing and factoring. Where existent, these have played a key role in addressing smallholders' cash needs at harvest time and have helped them seize the opportunities of seasonal arbitrage and profit-making. Factoring could also help smallholders overcome the problem of delayed payments by high-end domestic customers, and assist them in integrating into local supply chains. New instruments, such as weather index-based insurance, have also been effective in dealing with production risks, while contract farming has been used to hedge against price risks.

31. Thanks to the rapid development of ICTs in developing countries during the past decade, smallholders in rural areas now have access to information at very low cost. Mobile phones reduce the costs of information searching, provide farmers with the opportunity to make spatial and temporal arbitrage, and strengthen their knowledge of market prices, even with respect to distant markets. Mobile phones have also contributed to significantly easing the traditional way of delivering extension services and have increased financial inclusion through the use of so-called "mobile money". This application facilitates rural populations' access to innovative payment systems and basic financial services, making them more efficient. Smallholders could fully benefit from mobile-enabled services in their business environment through the establishment of public–private partnerships.

F. Smallholder farmers as the guardians of environmental sustainability

32. The close relationship between farming and environmental sustainability suggests that smallholders need to include environmental and ecological considerations in their investment decisions. Traditionally, due to their relatively minor use of chemicals in farming compared to larger farms, smallholders are considered the guardians of ecological and environmental sustainability at the local level. Smallholders also typically rely on traditional knowledge when predicting the weather. However, doing so has become increasingly difficult due to climate change as seasons, floods, and storms follow a more irregular pattern and the frequency of water stress, soil erosion, and infestations has increased. In addition to the evidence provided by agricultural institutions, the reality of the impact of climate change on agriculture and the importance of local community-based knowledge have both been substantiated in the Intergovernmental Panel on Climate Change (IPCC) scientific reports.[19] Recent findings of the IPCC on climate change and agriculture based on the contribution of working group I to the fifth assessment report of the IPCC show that climate change and extreme weather events will have greater impacts on sectors linked to natural production, such as agriculture and forestry. Clear links have also been established between the ability of the agricultural systems to adapt to these impacts and potential consequences on food security. The IPCC special report further asserts that there is "high confidence" that changes in climate have the potential to seriously affect water management systems.

agricultural investments and international investment law, available at http://investmentpolicyhub.unctad.org/Blog/Index/22 (accessed 20 July 2015).

[19] See IPCC special report, 2012, Summary for policymakers, in Managing the Risks of Extreme Events and Disasters to Advance Climate Change Adaptation (Cambridge, Cambridge University Press); and IPCC, 2013, Climate Change 2013: The Physical Science Basis. Contribution of Working Group I to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change (Cambridge, Cambridge University Press).

33. In the light of these findings, it is critical to reward smallholders who invest in environmentally friendly farming practices. This is particularly relevant when such practices conflict with profit maximization. Clearly, for many smallholder farms to be productive in the context of sub-Saharan Africa, there is a need to use fertilizers appropriately, both in the identification of the right fertilizers to be used as well as in the right quantities. In doing so, special care should be devoted to not replicating the experience of some countries in Asia and Europe where overuse of fertilizers has resulted in pollution and degradation of natural resources. China's agricultural production system, for example, has had negative impacts on the environment and on the pollution of natural resources.[20] According to estimates, agriculture accounts for more than 15 per cent of the country's total greenhouse gas emissions and nearly 90 per cent of nitrous oxide emissions, largely due to excessive fertilizer use.[21] To combat low fertilizer use efficiency, the Government is promoting technology aimed at calibrating fertilizer dosages according to the characteristics of soils.

34. Public awareness of the environmental impacts of agricultural activities has created new opportunities and incentives for smallholders to invest in higher quality and environmentally and socially responsible products in organic agriculture. Various studies have shown that, in addition to the positive impact on the environment, organic production can be as productive as agriculture based on the use of synthetic fertilizers, and in many cases organic produce fetches higher prices. In addition, it should also be acknowledged that there is a niche market for organic products. The main constraint on tapping this opportunity is the high costs associated with organic certification. Reducing those costs would therefore provide opportunities to smallholders seeking to benefit from this profitable niche market.

III. Policy recommendations

35. The *Commodities and Development Report 2015* identifies cases where strong leadership has led to positive outcomes in tackling the constraints to the development of smallholder farming. It includes highlights of pragmatic and inclusive policies geared to the needs of smallholders. The report also contends that the number of good practices and success stories of policies that have benefited smallholders demonstrates that change is possible and positive results can be achieved where there is strong political will. The report then goes further to underline the need for policy clarity and strong leadership at the highest levels – domestic, regional and international.

36. In addition to the tested solutions and good practices identified in many countries, the report offers a policy framework that combines measures at the national, regional and international levels and an accompanying plan of action for smallholders that builds on UNCTAD's integrated approach to trade, finance, investment and technology.

A. Strong leadership and an enabling environment at the national level

37. The *Commodity and Development Report 2015* states that there cannot be sustainable development of smallholder farming without a strong enabling national environment. Such an environment should include sound and predictable economic

[20] See X Li, L Tang, X Xu, G Qi and H Wang, 2013, What can Africa learn from China's experience in agricultural development? *IDS Bulletin*, 44 (4): 31–41.

[21] See J Wang, J Huang and S Rozelle, 2010, Climate change and China's agricultural sector: An overview of impacts, adaptation and mitigation, Issue brief No. 5, International Centre for Trade and Sustainable Development and International Food and Agricultural Trade Policy Council (Geneva and Washington, D.C.).

policies, a stable macroeconomic framework supportive of agricultural development, strong and effective institutions, adequate infrastructure and gender-awareness throughout. Overcoming the enduring challenges confronting small-scale farming requires implementing policy recommendations that have been made repeatedly in other contexts. When creating an enabling environment for smallholders, a special emphasis should be put on ensuring access to financing tools specifically adapted to smallholdings. Public support should be available for the development of innovative financing tools customized to the needs of small and vulnerable agribusinesses. Experience shows that public funds are also necessary for the provision of financial and business training. Such funds should be made available through special programmes housed at state development banks. Similarly, as with other sectors, state public investment funds could also be used to support innovative projects.[22] With regard to the specific issue of better access to finance, governments should promote greater domestic resource mobilization and aim to allocate a higher share of national savings to their agricultural sector.

38. Although external finance plays a key role in developing national agricultural sectors in developing countries, an agricultural development strategy that is solely dependent on foreign resources is likely to be unsustainable, given the high volatility of external financial flows due to the large investment gaps remaining for the sector[23] as well as the reality of unfulfilled aid commitments. Rather, countries should also develop the local agricultural sector by increasing domestic resources to be allocated to it. Furthermore, as smallholder farmers are the main providers of food in most sub-Saharan countries and in Asia, devoting resources to their survival and their development should be justified.

39. Enabling institutions should also include farmers' organizations as they enable individual smallholders to aggregate their produce and increase their bargaining power in their interactions with input and output markets. Also, strong farmers' associations would be able to influence policy in their favour through their voting power. Governments should bolster these associations in every way possible, including financially, particularly during their early stages of development. As for well-established associations, public support should focus on their professionalization in order to help them manage the increasing complexities of trade requirements at the international level.

Increase resources for science, technology and information and communications technologies tailored to the needs of smallholders

40. Science, technology and ICTs are the cornerstones of improvements in agricultural practices. Experience shows that advances in these areas depend on a combination of public and private investments steered by well-defined and well-executed public policy. As with all initiatives in support of smallholders, approaches to innovation policies should be inclusive and participatory.

41. Technology policy should aim to increase smallholders' productivity while at the same time fulfilling environmental sustainability requirements. In addition, the links between increasingly frequent natural disasters and climate change strengthen the case for investing in climate-smart and resilient agriculture, including the development of resilient seeds and agricultural methods. In the ICT sector, governments could implement ICT-related actions specifically geared to the development of smallholder farming.

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[22] For a typology of state investment banks see M Mazzucato and C Penna, 2014, Beyond market failures: The market shaping and creating role of state investment banks in the economy, Science Policy Research Unit working paper, University of Sussex.

[23] Total investment gaps for agriculture and food security for all developing countries are estimated at about US$260 billion. See UNCTAD, 2014, *World Investment Report. Investing in the Sustainable Development Goals: An Action Plan* (New York and Geneva, United Nations publication).

Establish a business-friendly environment for smallholders and make small-scale farming attractive to the younger generation

42. Leadership at the highest level is necessary for the State to promote and support investments in all areas relevant to the development of smallholder farming. Investment policymaking should underscore the potentially strong effects that investments targeting smallholders could have on sustainable agricultural production, food and nutrition security, job creation, poverty reduction and inclusiveness. Acknowledging that "Foreign ownership or user titles over agricultural land is particularly sensitive in most countries, in particular those with large rural populations and where food security is an issue"[24] UNCTAD's Investment Policy Framework for Sustainable Development stipulates that "Governments should pay particular care in putting in place and enforcing regulations to protect the long-term national interest and not compromise it for short-term gains by special interest groups".

43. Proposals include establishing safeguards to provide a safety net to protect the interests of local farmers at two levels: in investment contracts of the host state; and at the public international law level, in the investment treaties. Though the report advocates for contractual issues in agricultural investments to give due consideration to the interests of smallholders, it is beyond its scope to lay out the specifics of the associated judiciary mechanisms.[25]

44. Governments should also facilitate investments in other segments of the value chain, with particular incentives provided to inclusive business models that recognize the specificities of small actors throughout the value chain. In doing so, the usual components for the development of small and medium-sized enterprises, such as training and the provision of dedicated resources, should be adopted, with specific incentives for small-scale agribusinesses, keeping in mind the country's characteristics.

45. For smallholder farming to remain a sustainable option for making a living, there is also the need for a new set of policies and actions that make it attractive to the growing ranks of youth. Such policies should include developing regulatory tools, including start-up funds that specifically support entrepreneurial initiatives by young people in agriculture and connected sectors.

B. Prioritize food security objectives at the regional level

46. Achieving the goal of a world without hunger requires that regional economic communities give high priority to tackling food security and smallholder farming issues. The increasing number of regional cooperation agreements being concluded offers such an opportunity. In these intergovernmental forums, member countries can initiate actions based on common concerns as well as create opportunities built on their complementarities. Existing efforts at regional integration should be accelerated to facilitate regional trade in food products. In particular, members of regional economic communities could cooperate in the following arenas: developing much-needed infrastructure and storage facilities, including cold chains; establishing regional financial facilities for agricultural entrepreneurial activities; strengthening or investing in intraregional and interregional centres for research and technology transfer; targeting smallholders; supporting specialization in agricultural value chains within the regional bloc based on each member country's comparative advantage; establishing investment promotion measures for market-seeking intraregional foreign direct investment in agricultural value chains through

[24] See UNCTAD, 2012, Investment policy framework for sustainable development, available at http://unctad.org/en/PublicationsLibrary/diaepcb2012d5_en.pdf, p. 33 (accessed 21 July 2015).

[25] Ibid.

contractual arrangements involving smallholders; and establishing public–private partnerships to scale up non-State initiatives with a proven track record of positive impacts on smallholders.

47. Furthermore, eliminating constraints on the development of smallholder farming will require the combined efforts of different actors. The achievements of successful initiatives, such as the Alliance for a Green Revolution in Africa, involving development agencies, non-governmental organizations and philanthropic organizations should be well publicized, encouraged and scaled up. Most of these initiatives have a locally oriented, programmatic approach to develop locally adapted solutions to the demands of smallholders.

48. And finally, the immediate and medium-term impacts of the 2008 food crisis on vulnerable groups underscore the need for supranational grain reserves. UNCTAD (2012)[26] provides a detailed review of food reserve initiatives and their potential to improve food security. The review shows that food reserves in developed countries as well as in the developing world created after 1945, with price stabilization objectives, have failed within a decade or two of their creation. Rather, available evidence shows that it is the reserve programmes that have been established as emergency tools that have shown higher survival rates in the modern era. Accordingly, where some countries are still prone to recurrent food crises, their regional groupings should establish regional grain reserves as emergency food stocks. Experiences across Asia and Latin America show that the management of such stocks is most effective at the regional level. Although such reserves usually include physical stocks earmarked at the national level, their exact nature would depend on regional and country specificities with regard to the scale and nature of food shortages.

C. Policies and measures at the international level

49. At the international level, the *Commodities and Development Report 2015* advocates tilting the playing field in favour of smallholders in the multilateral trading system. Specific recommendations in this area are as follows.

Establish an enabling environment at the international level

50. The report shows that smallholders produce mainly for domestic and regional markets, but very little for international markets. Various constraints, in the international trading system, such as high health, safety and quality standards, price instability and imbalances in market power, limit their ability to participate more fully in international trade. Addressing those constraints through training and capacity-building would enable their greater participation, thereby ensuring that prosperity is shared across all countries and their people. In addition, and perhaps most importantly, implementing recommendations at the international level will require strengthening multi-stakeholder partnerships and coalitions in favour of smallholders in multiple forums. Development partners should join forces in advocating for greater attention to be paid to the needs of smallholders and the promotion of sustainable commodity production. Forthcoming climate and trade negotiations should constitute the first demonstrations of such coalitions.

Ensure that outcomes of the Doha Round benefit smallholders, promote food security and support the specific case of smallholder cotton producers

51. A favourable outcome on food security in the ongoing World Trade Organization negotiations under the Doha Round is needed to support the objective of Millennium

[26] UNCTAD, 2012, Commodities and Development Report 2012: Perennial Problems, New Challenges and Evolving Perspectives (New York and Geneva, United Nations publication).

Development Goal 1 and that of its successor in the sustainable development goals. As the world gears up to committing to the sustainable development goals, which will include ending hunger for all, members of the World Trade Organization should contribute to this effect. Various high-level events due to take place towards the end of 2015 provide an opportunity to make strides in improving the livelihoods of smallholder farming. Similarly, cotton represents one of the key tests of the capacity of the Doha Round to deliver on its promises of boosting development. It should therefore be quickly resolved in the post-Bali negotiations. In addition to the trade and development aspects highlighted at the World Trade Organization, more resources should also be devoted to productivity, marketing and value addition, along the lines enunciated in the Pan African Cotton Road Map.

Reform the regulation of international commodity markets with a focus on the well-being of smallholders

52. The international community needs to consider collectively devising mechanisms for the better functioning of international commodity markets, with a special emphasis on bolstering the development of smallholder farming. Research by UNCTAD has underlined the role of the financialization of commodity markets and "the hundreds of billions of dollars of bets placed on expectations" as the driving forces behind increased commodity price volatility. It has underscored that as the volumes of exchange-traded derivatives on commodity markets became 20 to 30 times larger than physical production, the influence of financial markets has transformed real markets into financial ones.[27] UNCTAD has repeatedly called for strong and prompt policy and regulatory responses in the financial markets, coupled with measures on physical markets. Some of these policy proposals are of direct relevance to smallholders, namely the call for increasing transparency and for providing better and more timely data on fundamentals in physical markets.[28]

Ensure that development finance and climate finance for the agricultural sector primarily target small-scale farming

53. Donor countries should increase their official development assistance to agriculture with a special focus on smallholders. In addition, research and development specific to sustainable smallholder farming should benefit from more accessible innovative financing mechanisms at the international level as well funds from regional and international development banks. Agriculture, and particularly smallholder farming, should also have its rightful place in future climate negotiations.

54. With regards to responses to the likely impact of climate change and extreme weather events on agriculture, as described in paragraph 32, the IPCC special report underscores that opportunities in creating synergies in international finance for disaster risk management and adaptation to climate change should be seized, as these have not yet been fully realized. It also notes that technology transfer and cooperation to advance disaster risk reduction and climate change adaptation, though important, has been insufficient. It states that there is room for improved integration across scales from international to local as for now efforts at the international level do not necessarily lead to substantive and rapid results at the local level.

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[27] UNCTAD, 2012, Don't blame the physical markets: Financialization is the root cause of oil and commodity price volatility, Policy Brief No 25, September 2012.

[28] UNCTAD, 2011, Trade and Development Report 2011: Post-crisis Policy Challenges in the World Economy (New York and Geneva, United Nations publication), and UNCTAD, 2012, Trade and Development Report 2012: Policies for Inclusive and Balanced Growth, (New York and Geneva, United Nations publication).

55. The IPCC special report states that "Integration of local knowledge with additional scientific and technical knowledge can improve disaster risk reduction and climate change adaptation". It highlights that local populations' documentation of their experiences with the changing climate, particularly extreme weather events, can uncover existing capacity within the community and important current shortcomings. In this regard, the special report further adds that improvements in the availability of human and financial capital and of disaster risk and climate information customized for local stakeholders can enhance community-based adaptation.

Align policies, pledges and actions at international, regional and national levels

56. The acceleration and sustainability of progress in achieving food security and sustainable and inclusive development requires that three agendas be aligned: the food security agenda, the nutrition agenda and the agriculture agenda.[20]

57. The same requirement for alignment applies to policies belonging to the technology and investment fields. As for development aid, donors and developing-country governments should honour their commitments made in the Paris Declaration for Aid Effectiveness.

Establish mechanisms for greater accountability and monitoring

58. Achieving the sustainable development goals will require moving beyond business as usual, including with regards to accountability and monitoring. Mechanisms for monitoring of progress on key commitments related to smallholders are urgently needed. The accountability framework should include governments, farmers' organizations, civil society organizations, and the private sector, along value chains and development partners, including relevant international organizations.

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[20] For details, see http://www.un.org/en/zerohunger/challenge.shtml (accessed 20 July 2015).